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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,350	10/31/2000	Fuad Mehraban	10716-15 (CURA-90/PI891R1)	3065
23552	7590	11/24/2004	EXAMINER NICKOL, GARY B	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			ART UNIT	PAPER NUMBER
			1642	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,350

Applicant(s)

MEHRABAN ET AL.

Examiner

Gary B. Nickol Ph.D.

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56 and 69-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56 and 69-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Sequence comparison.

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Mehraban *et al.*

Date of priority: 11-01-1999

Request for Continued Examination

The request filed on 09-02-2004 for a Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/703,350 is acceptable and a RCE has been established. An action on the RCE follows.

Claims 56, and newly added claims 69-76 are pending and are currently under consideration.

Claim Objections

Claim 56 is objected to, *in part*, as drawn to a non-elected invention. Claim 56 necessarily includes methods for modulating angiogenesis in a mammal comprising administering an **immunogenic fragment** of a protein comprising an amino acid sequence of SEQ ID NO:76. As the originally elected claims were restricted to method of administering anti-PA antibodies (class 424/130.1), it would appear that newly amended claim 56 is now inclusive of a non-elected invention that is also classified separately from the elected invention. Applicants are requested to cancel the non-elected subject matter. See MPEP 821.03

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

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Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 56 and 69 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 9, and 10 of copending Application No. 10/824,075. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to modulating angiogenesis in vivo comprising administering an antibody that binds to a polypeptide comprising an amino acid sequence of SEQ ID NO:76, also known as human stanniocalcin-1 (SEQ ID NO:2 in Application No. 10/824,075)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 56, and 69-76 are rejected under 35 U.S.C. 102(e) as being anticipated by Olsen *et al.* (US2002004237A1, 10-27-1999).

Olsen *et al.* teach methods of modulating angiogenesis comprising administering an antibody or antigen binding fragment thereof that specifically binds a polypeptide comprising an amino acid sequence of SEQ ID NO:76 (see attached sequence comparison). Specifically, Olsen *et al.* teach that their methods provide for treatment of diseases or disorders associated with neovascularization by administration of the stanniocalcin polynucleotides and/or polypeptides of the invention, as well as agonists or antagonists of stanniocalcin [para 422] wherein antibodies of may act as agonists or antagonists of the polypeptides [para 0129]. The reference further teaches that the antibodies include polyclonal, monoclonal, human, bispecific, Fab, Fab' and F(ab')₂ fragments [para 0123] and heteroconjugates [para 181]. Further, although the reference does not specifically teach that the polypeptide is encoded by a polynucleotide comprising SEQ ID NO:75, inherently said polypeptide is encoded by the claimed nucleic acid sequence as the prior art polypeptide is 100% identical to the claimed polypeptide. The office does not have the facilities and resources to provide the factual evidence needed in order to establish that the product of the prior art does not possess the same material, structural and functional characteristics of the claimed product. In the absence of evidence to the contrary, the burden is on the applicant to prove that the claimed product is different from those taught by the prior art and to establish patentable differences. See *In re Best* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *Ex parte Gray* 10 USPQ 2d 1922 (PTO Bd. Pat. App. & Int. 1989).

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No claim is allowed.

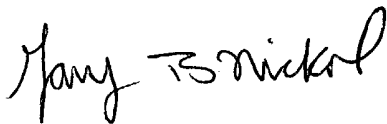
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 571-272-0835. The examiner can normally be reached on M-Th, 8:30-5:30; alternate Fri., 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary B. Nickol Ph.D.
Primary Examiner
Art Unit 1642

GBN



GARY NICKOL
PRIMARY EXAMINER

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 16, 2004, 09:59:29 ; Search time 143 Seconds

(without alignments)
611.142 Million cell updates/sec

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Perfect score: 1268
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Searched: 1568699 seqs, 353819137 residues

Total number of hits satisfying chosen parameters: 1568699

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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20: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by change to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	1268	100.0	247	9	US-09-840-989A-2
2	1268	100.0	247	9	US-09-361-736-10
3	1268	100.0	247	13	US-10-116-051-2
4	1268	100.0	247	14	US-10-177-293-441
5	1268	100.0	247	14	US-10-418-226-10
6	1268	100.0	247	14	US-10-465-572-18
7	1268	100.0	247	15	US-10-372-683-41
8	1268	100.0	247	17	US-10-614-990-2
9	937	73.9	276	9	US-09-925-300-1426
10	662.5	52.2	256	9	US-09-840-989A-3
11	662.5	52.2	256	17	US-10-614-990-3
12	660.5	52.1	204	13	US-10-116-051-10
13	628	49.5	170	9	US-09-361-736-9

14	628	49.5	170	14	US-10-418-226-9	Sequence 9, Appli
15	358	28.2	70	9	US-09-864-761-37770	Sequence 37770, A
16	354	27.9	302	9	US-09-193-881-23	Sequence 23, Appl
17	354	27.9	302	14	US-10-177-293-443	Sequence 443, App
18	354	27.9	302	14	US-10-338-395-23	Sequence 23, Appl
19	354	27.9	302	14	US-10-418-226-12	Sequence 12, Appl
20	354	27.9	302	14	US-10-364-889-4	Sequence 4, Appli
21	354	27.9	302	14	US-10-295-027-100	Sequence 100, App
22	354	27.9	302	15	US-10-173-999-80	Sequence 80, Appli
23	354	27.9	302	15	US-10-058-270A-22	Sequence 22, Appli
24	351.5	27.7	251	14	US-10-418-226-2	Sequence 2, Appli
25	333.5	26.3	251	9	US-09-361-736-2	Sequence 9, Appli
26	303	23.9	118	13	US-10-116-051-9	Sequence 9, Appli
27	95.5	7.5	299	15	US-10-282-122A-49895	Sequence 49895, A
28	94.5	7.5	415	17	US-10-425-115-320042	Sequence 320042, A
29	92	7.3	1010	17	US-10-425-115-312927	Sequence 312927, A
30	91	7.2	901	16	US-09-828-062-8	Sequence 8, Appli
31	91	7.2	901	16	US-10-768-511-8	Sequence 96, Appli
32	90.5	7.1	783	15	US-10-149-310-96	Sequence 172, App
33	90	7.1	281	11	US-09-973-278-172	Sequence 278, App
34	90	7.1	281	11	US-09-973-278-172	Sequence 278, App
35	90	7.1	331	15	US-10-264-049-2324	Sequence 2324, App
36	89.5	7.1	622	16	US-10-437-963-161551	Sequence 161551, A
37	89.5	7.1	1123	15	US-10-282-122A-70581	Sequence 70581, A
38	89.5	7.1	10203	16	US-10-661-809-23	Sequence 23, Appli
39	89	7.0	201	17	US-10-425-115-320040	Sequence 320050, A
40	89	7.0	431	17	US-10-425-115-285165	Sequence 285165, A
41	86	6.8	401	15	US-10-425-115-63193	Sequence 63193, A
42	86	6.8	401	15	US-10-282-122A-54827	Sequence 54827, A
43	86	6.8	500	15	US-10-289-762-299	Sequence 299, App
44	86	6.8	529	17	US-10-425-115-320053	Sequence 320053, A
45	85.5	6.7	564	15	US-10-424-599-272057	Sequence 272057, A

ALIGNMENTS

RESULT 1
US-09-840-989A-2
Sequence 2, Application US/09840989A
Patent No. US20020042372A1
GENERAL INFORMATION:
APPLICANT: Olesen et al.
TITLE OF INVENTION: Stannocalcin Polynucleotides, Polypeptides, and Methods Based Th
FILE REFERENCE: PFI08P2
CURRENT APPLICATION NUMBER: US/09/840,989A
CURRENT FILING DATE: 2001-04-25
PRIOR APPLICATION NUMBER: PCT/US00/29432
PRIOR FILING DATE: 2000-10-26
PRIOR APPLICATION NUMBER: US 60/161,740
PRIOR FILING DATE: 1999-10-27
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENGTH: 247
TYPE: PRT
ORGANISM: Homo sapiens
US-09-840-989A-2

Query Match 100.0%; Score 1268; DB 9; Length 247;
Best Local Similarity 100.0%; Pred. No. 9e-121;
Matches 247; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 181 SLMEKIGPNMASLFIHLQTDHCAQTHPRADFNRRRTNEPQKLVLRLNRGGEEDSPSHIK 240
QY 241 RTSHESA 247
Db 241 RTSHESA 247

RESULT 2

US-09-361-736-10
; Sequence 10, Application US/09361736
; Patent No. US20020102634A1
; GENERAL INFORMATION:
; APPLICANT: OLSEN, ET AL.
; TITLE OF INVENTION: Human Stannocalcin-alpha
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
; ADDRESSEE: CECCHI, STEWART & OLSTEIN
; STREET: 6 BECKER FARM ROAD
; CITY: ROSELAND
; STATE: NEW JERSEY
; COUNTRY: USA
; ZIP: 07068
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 INCH DISKETTE
; COMPUTER: IBM PS/2
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: WORD PERFECT 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/361,736
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/460,529
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: MULLINS, J.G.
; REGISTRATION NUMBER: 33,073
; REFERENCE/DOCKET NUMBER: 325800-334 (PFI43)
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201-994-1700
; TELEFAX: 201-994-1744
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 247 AMINO ACIDS
; TYPE: AMINO ACID
; STRANDEDNESS:
; TOPOLOGY: LINEAR
; MOLECULE TYPE: PROTEIN
; US-09-361-736-10

Query Match 100.0%; Score 1268; DB 9; Length 247;
Best Local Similarity 100.0%; Pred. No. 9.9e-121;
Matches 247; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 241 RTSHESA 247

RESULT 3

US-10-116-051-2
; Sequence 2, Application US/10116051
; Publication No. US20020146791A1
; GENERAL INFORMATION:
; APPLICANT: Olsen et al.
; TITLE OF INVENTION: CORPUSCLES OF STANNIUS PROTEIN, STANNIOCALCIN
; FILE REFERENCE: PFI08PDI01
; CURRENT APPLICATION NUMBER: US/10/116,051
; CURRENT FILING DATE: 2002-04-05
; PRIOR APPLICATION NUMBER: 09/312,610
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 08/431,117
; PRIOR FILING DATE: 1995-04-28
; PRIOR APPLICATION NUMBER: 08/208,005
; PRIOR FILING DATE: 1994-03-08
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 247
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-116-051-2

Query Match 100.0%; Score 1268; DB 13; Length 247;
Best Local Similarity 100.0%; Pred. No. 9.9e-121;
Matches 247; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MCQNSAVLLVLTIVISASATHEAEQNDVSFPRKSRVAQAQNSAEVYRCINSLALQVCGAFACL 60
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Db 241 RTSHESA 247
QY 241 RTSHESA 247
Db 241 RTSHESA 247
RESULT 4
US-10-177-293-441
; Sequence 441, Application US/10177293
; Publication No. US20030124128A1
; GENERAL INFORMATION:
; APPLICANT: Lillie, James
; APPLICANT: Glatt, Karen
; APPLICANT: Zhao, Xumei
; APPLICANT: Ganawarpu, Manjula
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Mertens, Maureen
; APPLICANT: Myer, VJC
; APPLICANT: Wang, Youzhen
; APPLICANT: Xu, Yongyao
; APPLICANT: Hoersch, Sebastian
; APPLICANT: Monahan, John
; APPLICANT: Meyers, Rachel E.